

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. No claims are amended or canceled in this response. All claims are original except for claims 7-8, 17-18, 21 and 29. Claims 7-8 and 17-18 were previously amended to address a rejection under 35 U.S.C. § 112. This rejection was withdrawn in the present Office Action. Claim 21 was previously amended to address a rejection under 35 U.S.C. § 101. This rejection, and other rejections under 35 U.S.C. § 101, also were withdrawn in the present Office Action. Claim 29 was previously amended to address a dependency objection. The objection was removed in the present Office Action. Claims 1-31 remain pending.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-2, 4-5, 7-8, 11-12, 14-15, 17-18, 24-25, 27-28, and 30-31 were rejected under 35 U.S.C. § 102(e) as being anticipated by Publication No. 2002/0161883 A1 to Matheny et al. (hereinafter "Matheny"), as they were in the first Office Action. Applicant respectfully traverses the rejection. By the following remarks, applicant both reasserts and expounds upon why Matheny does not anticipate the claims.

Applicant reserves its right to file a Rule 131 Declaration to remove the rejection over Matheny.

The subject application is directed to methods and systems for discovering resources in distributed networks, as exemplified in claim 1:

1           1.       A method for performing resource discovery in a  
2       network having multiple subnets and wherein inter-subnet  
3       discovery agents installed on nodes within the multiple subnets  
4       support inter-subnet resource discovery, the method comprising:  
5                designating, within a first subnet, a first inter-subnet  
6       discovery agent on a first node as an active discovery agent;  
7                discovering, by the first inter-subnet discovery agent, active  
8       discovery agents on neighboring subnets in the network; and  
9                propagating, by the first node containing the active  
10      discovery agent, an inter-subnet resource discovery search request  
11      to the active discovery agents on neighboring subnets.

12  
13      Applicant asserts that the claims, as exemplified by claim 1, are not anticipated  
14      by the cited reference.

15  
16      ***Review of the Matheny Reference***

17           To clarify distinctions between Matheny and claims to which it is applied,  
18      applicant offers this review of what Matheny does and does not disclose. Matheny  
19      discloses a hierarchical system for collecting, aggregating, and coalescing  
20      discovery network discovery data in which one or more network managers direct a  
21      number of discovery agents and aggregator agents. Specifically, applicant wishes  
22      to note six aspects of Matheny to clarify what it does and does not disclose both in  
23      passages relied upon in the Office Action and other portions of the reference.

24           First, Matheny discloses using one or more network managers that control  
25      discovery operations by directing discovery agents. Matheny's "network

1 management system 102 includes *a network manager 104, which utilizes a*  
2 *number of different network discovery agents 106 and aggregator agents 108 to*  
3 *perform discovery operations*” (Matheny, Page 1, Paragraph 8; emphasis added).

4 The network manager controls the discovery agents: “[T]he *network manager*  
5 *104 may be a host computer* that includes software *for initiating and*  
6 *coordinating network discovery operations* on devices in the network *using a*  
7 *number of different agents.*” (Matheny, Page 1, Paragraph 10; emphasis added).

8 When a network manager seeks information about devices in the network, “[t]he  
9 discovery operation 300 is initiated by the network manager 104” (Matheny, Page  
10 2, Paragraph 18). Thus, Matheny teaches and relies upon a hierarchy in which  
11 one or more network managers direct discovery agents.

12 Second, Matheny’s network managers and discovery agents perform  
13 different roles. As previously described, Matheny’s “network manager may be a  
14 host computer that includes software for initiating and coordinating network  
15 discovery operations *using a number of different agents*” (Matheny, Page 1,  
16 Paragraph 10). By contrast, “*the discovery agents 106 collect information from*  
17 *targeted network devices . . . by polling devices* in a certain range of addresses or  
18 in a particular subnet” (Matheny, Page 1, Paragraph 11; emphasis added).  
19 Matheny’s discovery agents collect information about *devices* using various  
20 polling techniques (Matheny, Page 1, Paragraphs 11-14). Thus, network managers  
21 and discovery agents perform different functions.

22 Third, Matheny makes plain that the network manager and the discovery  
23 agents are different entities. The network manager 104 and discovery agents 106  
24 are depicted as separate entities in Figure 1. The separateness of the network  
25 manager and the discovery agents is expressly emphasized in that “[d]iscovery

1 agents may be on the same computer as the discovery manager, or may reside on a  
2 remote machine” (*Matheny*, Page 1, Paragraph 11). Thus, network managers and  
3 discovery agents are separate entities, even if they reside on the same computer.

4 Fourth, Matheny does not designate whether discovery agents are active.  
5 The word “active” is not used in Matheny. Furthermore, the word “designate,” in  
6 any form or conjugation, appears only twice in the reference, and both times, in  
7 paragraphs 19 and 33, the word “designate” is used with regard to an address  
8 range or a subnet in which discovery information is sought. For example:

9 “The discovery request may include requested data types and  
10 ***designate an address range(s) or subnet(s) for discovery.*** The  
11 discovery request may be compared to the available capabilities  
12 defined by the matrix derived from the registration files in the agent  
13 directory. The network manager 104 loops through files in a  
14 command directory, searching for XML files that match the address  
15 ranges or subnets identified for discovery (block 304). These files  
16 may include a high-level tag named <task> for easy recognition.  
17 The ***network manager may then create a command file for each***  
18 ***identified discovery agent.***”

15 (*Matheny*, Page 2, Paragraph 19; emphasis added). Matheny does not differentiate  
16 between discovery agents, and, if more than one discovery agent is identified in a  
17 designated address range or subnet, the network manager creates a “command file  
18 for ***each identified discovery agent***” (*Matheny*, Page 2, Paragraph 19; emphasis  
19 added). Matheny does not disclose designating a discovery agent as active.

20 Fifth, nowhere does Matheny disclose that discovery agents have the  
21 capability to identify or discover another discovery agent. Matheny’s discovery  
22 agents interact with and identify devices (*Matheny*, Page 1, Paragraphs 11-14, 21,  
23 and 23). Matheny’s discovery agents respond to network managers that invoke  
24 them. However, Matheny does not disclose that one discovery agent may identify  
25 or discover another discovery agent.

1 Sixth, Matheny does not disclose network managers recognize, identify, or  
2 can discover one another. Matheny recites that "More than one network manager  
3 may be allocated to the network" (*Matheny*, Page 1, Paragraph 10). However,  
4 Matheny nowhere discloses, that one network manager may identify or discover  
5 another network manager.

6  
7 ***Matheny Fails to Teach Each and Every Element of the Claims***

8 Matheny does not teach each and every element of the claims to which it is  
9 applied, and, thus, does not anticipate the claims. The Manual of Patent  
10 Examining Procedure expressly states a reference does not anticipate a claim when  
11 the reference fails to teach each and every element of the claim:

12 **"TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH  
13 EVERY ELEMENT OF THE CLAIM"**

14 "A claim is anticipated only if each and every element as set forth in the  
15 claim is found, either expressly or inherently described, in a single prior  
16 art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d  
17 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." . . . "The identical  
18 invention must be shown in as complete detail as is contained in the ...  
claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d  
1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required  
by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of  
terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566  
(Fed. Cir. 1990)."

19 (MPEP, § 2131). The cited reference fails to teach every element of the claims,  
20 either expressly or inherently, for at least three reasons, each of which  
21 independently proves that Matheny does not anticipate the claims.

22 For purposes of limiting the issues for consideration, the following remarks  
23 demonstrate that Matheny does not anticipate the elements of independent claims  
24 1, 11, and 21. Because dependent claims 2-10, 12-20, and 22-31 apply additional  
25

1 limitations to the claims from which they depend, the dependent claims are  
2 patentable for at least the same reasons as the independent claims.

3  
4 *Matheny's Discovery Agents Do Not Discover Discovery Agents*

5 Applicant maintains the position asserted in its previous response that  
6 Matheny fails to disclose “discovering, by the first inter-subnet discovery  
7 agent, active discovery agents on neighboring subnets in the network” as  
8 recited in claims 1 and 11 or “an active discovery agent . . . identifying active  
9 discovery agents on neighboring subnets within the network” as recited in  
10 claim 21. Applicant asserts that Matheny does not anticipate this element and,  
11 respectfully, that the response of the present Office Action to this element is  
12 based on a misreading of both the claims and the cited reference.

13 The present Office Action asserts that “discovering discovery agents” is  
14 “not recited in the rejected claims” (*Office Action*, Page 2, Page 7).  
15 Respectfully, however, although claims 1 and 11 include an intermediate clause  
16 between the words “discovering” and “discovery agents,” the claims expressly  
17 recite “discovering . . . discovery agents.” Discovery agents are the object of  
18 the verb discovering in claims 1 and 11. Similarly, although claim 21 also  
19 other words that separate the term “discovery agent” from the verb  
20 “identifying,” claim 21 expressly recites that it is a “discovery agent” that is  
21 “identifying” other “discovery agents.” Thus, respectfully, applicant asserts  
22 that the element at issue is, and always has been, recited in the claims, and that  
23 applicant was not arguing a feature that was not recited in the claims.

24 Matheny neither teaches nor suggests, nor is it inherent in Matheny, that  
25 a discovery agent discovers (claims 1 and 11) or identifies (claim 21) other

1 discovery agents. Respectfully, the passage of Matheny relied upon by the  
2 present Office Action does not show that Matheny anticipates this element; the  
3 passage describes that *discovery agents* collect information about *devices*,  
4 while the *network manager* collects information from the discovery agents:

5 FIG. 3 is a flowchart that describes a discovery operation 300  
6 according to an embodiment. *The discovery operation 300 is*  
7 *initiated by the network manager 104* receiving a discovery request  
8 (block 302). The discovery request may include requested data types  
9 and designate an address range(s) or subnet(s) for discovery. The  
10 discovery request may be compared to the available capabilities  
11 defined by the matrix derived from the registration files in the agent  
12 directory. The *network manager 104* loops through files in a  
13 command directory, searching for XML files that match the address  
14 ranges or subnets identified for discovery (block 304). These files  
15 may include a high-level tag named <task> for easy recognition. *The*  
16 *network manager may then create a command file for each*  
17 *identified discovery agent*

18 (Matheny, Page 2, Paragraph 19; emphasis added). This passage does not disclose  
19 that a discovery agent may discover or identify another discovery agent, only how  
20 a network manager may identify a discovery agent.

21 Other portions of Matheny further detail the different functions  
22 performed by network managers and discovery agents, emphasizing that  
23 discovery agents do not discover or identify other discovery agents. Matheny's  
24 discovery agents poll *devices* to collect device information:

25 The discovery agents 106 collect information from targeted  
network devices 110 during a discovery operation (described below),  
for example, *by polling devices in a certain range of addresses or in*  
*a particular subnet*. Different discovery agents may perform  
discovery operations using different techniques, and may collect  
different types of data. *Discovery agents may be on the same*  
*computer as the discovery manager, or may reside on a remote*  
*machine that uses a local module to communicate with the*  
*discovery manager*.

(Matheny, Paragraph 11; emphasis added). Matheny recites lists a number of  
different techniques by which the discovery agents poll devices, including SNMP,

1 RMON, and ICMP, but these all techniques are directed to how discovery agents  
2 collect information about devices. (See Matheny, Page 1, Paragraphs 12-14). By  
3 contrast, Matheny's discovery agents provide information that may be  
4 aggregated and collected by *network managers*:

5       The network manager 104 continues to loop through the other  
6       discovery agents 106 (block 320), repeating the operation (blocks  
7       306-318) ***until all registered discovery agents have been called*** and  
      all discovered and aggregated information has been coalesced into  
      the discovery document.

8 (Matheny, Paragraph 28; emphasis added). Matheny's emphasis on delineating  
9 the separate functions of the network managers and the discovery agents makes  
10 clear that Matheny neither teaches nor suggests discovery agents discovering  
11 (claims 1 and 11) or identifying (claim 21) other discovery agents. Therefore,  
12 Matheny fails to anticipate independent claims 1, 11, and 21.

13  
14 *Matheny Does Not Disclose Other Elements of the Independent Claims*

15       In addition to clarifying that Matheny does not disclose discovery agents  
16       discovering or identifying discovery agents, applicant offers three additional  
17       reasons why Matheny fails to anticipate claims 1, 11, and 21, and the claims  
18       depending from them. Each of these reasons alone also is sufficient to  
19       demonstrate that Matheny fails to anticipate the claims.

20       First, Matheny does not disclose "designating, within a first subnet, a first  
21       inter-subnet discovery agent on a first node as an active discovery agent," as  
22       recited in claims 1 and 11, or "a selection mechanism for designating the active  
23       discovery agent within each subnet" as recited in claim 21. Matheny nowhere  
24       discloses designating a discovery agent within each subnet as active. If  
25       anything, as previously described, Matheny discloses the opposite: the network



1 manager creates a “command file” for *each identified discovery agent*” (Matheny,  
2 Page 2, Paragraph 19; emphasis added). Because Matheny fails to disclose or  
3 suggest, either expressly or inherently, designating an active discovery agent  
4 (claims 1 and 11) or a mechanism for designating the active discovery agent  
5 (claim 21), Matheny does not to anticipate the claims.

6 Second, Matheny does not disclose “propagating, by the first node  
7 containing the active discovery agent, an inter-subnet resource discovery search  
8 request to the active discovery agents on neighboring subnets,” as recited in  
9 claims 1 and 11, or “a request propagation mechanism by which nodes  
10 containing the active discovery agents propagate an inter-subnet resource  
11 discovery search request to active discovery agents on neighboring subnets” as  
12 recited in claim 21. As previously described, Matheny’s discovery agents poll  
13 for resources in assigned or specified locations, and the information retrieved may  
14 be used by a network manager. However, Matheny discloses nothing regarding a  
15 discovery agent propagating a request to another discovery agent. Similarly, even  
16 in a network that includes multiple network managers, Matheny does disclose or  
17 suggest the possibility that one network manager may be aware of another, or that  
18 one may propagate requests or any other information to another. Matheny fails to  
19 disclose, expressly or inherently, propagating requests by one discovery agent  
20 to another, and thus does not anticipate the claims.

21 Third, solely for the sake of argument, even if the present Office Action  
22 intended to equate or merge the functions of Matheny’s network managers and  
23 discovery agents to assert that Matheny anticipates the claims, applicant  
24 respectfully asserts that such an assumption contradicts the reference itself.  
25 Neither the previous Office Action nor the present Office Action expressly

1 suggest that functions of network managers and discovery agents could be or  
2 should be equated or combined. Furthermore, Matheny makes clear that the  
3 network managers and discovery agents are separate entities, and teaches that  
4 they are not to be combined. As previously and repeatedly described, the  
5 network managers and discovery agents perform separate functions. Moreover,  
6 the separateness of the network managers and discovery agents is expressly  
7 underscored by Matheny's recitation that "discovery agents may be on the same  
8 computer as the discovery manager, or may reside on a remote machine"  
9 (*Matheny*, Page 1, Paragraph 11). By Matheny's own words, even if  
10 implemented on the same computer, a network manager and a discovery agent  
11 are separate entities. Thus, Matheny itself forecloses the possibility of  
12 combining or merging its network managers and discovery agents.

13 For the foregoing reasons, applicant respectfully asserts that Matheny  
14 fails to teach or suggest, expressly or inherently, each and every element  
15 recited by claims 1, 11, and 21. Accordingly, applicant requests that the  
16 rejections under 35 U.S.C. § 102 be withdrawn from claims 1, 11, and 21. In  
17 addition, because dependent claims 2, 4-5, 7-8, 11-12, 14-15, 17-18, 24-25, 27-28,  
18 and 30-31 apply additional limitations to the claims from which each depends,  
19 applicant requests that the rejections under 35 U.S.C. § 102 be withdrawn from  
20 claims 2, 4-5, 7-8, 11-12, 14-15, 17-18, 24-25, 27-28, and 30-31.  
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**CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

Claims 3, 6, 13, 16, 26, and 29 were rejected under 35 U.S.C. § 103(a). Applicant respectfully traverses the rejection. Claims 3, 6, 13, 16, 26, and 29 apply additional elements to the claims from which each depends. Accordingly, these claims are patentable for at least the same reasons as the claims from which each depends. Thus, applicant respectfully request that the rejection under 35 U.S.C. § 103 be withdrawn with regard to claims 3, 6, 13, 16, 26, and 29.

Applicant's decision not to discuss the differences between the cited art and each dependent claim with regard to rejections under 35 U.S.C. §§ 102 and 103 should not be considered as an admission that applicant concurs with the Office Action's conclusion that these dependent claims are not patentable over the cited references.

Similarly, applicant's decision not to discuss differences between the prior art and every claim element in any of the claims, or every comment in the Office Action, should not be considered as an admission that applicant concurs with interpretations and assertions regarding those claims in the Office Action.

1 CONCLUSION

2 Claims 1-31 are in condition for allowance. Applicant respectfully requests  
3 reconsideration and prompt allowance of the subject application. If any issue  
4 remains unresolved that would prevent allowance of this case, the Examiner is  
5 requested to contact the undersigned attorney to resolve the issue.

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7  
8 Respectfully Submitted,

9  
10 Dated: 2-14-2006

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